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ABSTRACT

Credit by examination is essentially the awarding of credit for theoretical knowledge gained outside traditional classroom situations. The examination provides the basis for the kinds and numbers of credits awarded. Programs in credit by examination are innovative because they recognize that people do indeed learn, either purposefully or incidentally, through their life experiences and, in doing so, should be afforded the alternative of receiving formal credit and, in some cases, credentials for that learning. This document comprises a series of papers that were presented at 3 workshops held on the subject of credit by examination in Salt Lake City, Seattle, and Los Angeles during 1971. The papers demonstrate applications of credit by examination to several areas of continuing and higher education. In demonstrating these applications, the papers bring together viewpoints of persons who are engaged in meeting the needs of different segments of society. (Author/HS)

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Proceedings from Workshops in the West 1971

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OTHER WICHE PUBLICATIONS

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Campus and Capitol: Higher Education and the States, W. John Minter, ed., 1966 Proceedings for the Eighth Annual College and University Self-Study Institute. $3.50.

College and Universities as Agents of Social Change, W. John Minter, and Ian M. Thompson, ed., 1968. Proceedings from the Tenth Annual College and University Self-Study Institute. $3.50.

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1971

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FOREWORD

The Western Interstate Commission for Higher Education and the College Entrance Examination Board present here the papers from three workshops on the subject of credit by examination.

The workshops were held in Salt Lake City and Los Angeles during February and in Seattle during April 1971. Sponsored jointly by WICHE and the CEEB, the workshops were held for the purpose of providing a forum for discussion among those persons who had already been instrumental in implementing credit by examination and those who were interested in exploring the possibilities of using this innovation at their own institutions.

The papers demonstrate applications of credit by examination to several areas of continuing and higher education. In demonstrating these applications, the papers bring together viewpoints of persons who are involved in meeting the needs of different segments of society.

Credit by examination is essentially the awarding of credit for theoretical knowledge gained outside of the traditional classroom situation. The examination provides the basis for the kinds and numbers of credits awarded. Programs in credit by examination are innovative because they recognize that people do indeed learn either purposefully or incidentally through their life experiences and, in doing so, should be afforded the alternative of receiving formal credit and, in some cases, credentials for that learning.

The substance of these workshops was within the scope and orientation of both WICHE and the CEEB. WICHE has traditionally been involved with expanding the educational opportunities for people within the western region of the United States and in helping colleges and universities to improve their programs and administrations so that people could be served with broader opportunities. The College Entrance Examination Board has also been concerned with increasing the public's access to higher education. In recent years

the College Level Examination Program through CEEB has provided a series of examinations in subject areas that colleges, universities, military, and business and industry have been able to use in granting credit for nontraditional learning. In presenting the workshops, both organizations expressed a commitment to the concept and reality of credit by examination.

We at WICHE and the CEEB gratefully acknowledge the invaluable contribution of the eight authors, who had important things to say and said them well. We also acknowledge the leadership of Bob Altman of WICHE and Quentin Jones of CEEB in seizing the opportunity to sponsor workshops on such a timely topic, and to Jack Arbolino, Executive Director of the College Level Examination Program at CEEB for his role in moderating two of the three workshops.

And, of course, in our expressions of appreciation, we must recognize our own colleagues who encouraged us to try and who supported our activities throughout, as well as commend the participants whose thoughtful criticisms and probing questions made the workshops productive and stimulating experiences.

Kevin P. Bunnell, Director
Division of General Regional Programs
WICHE
Boulder, Colorado

George H. Hanford, Executive
Vice-President and Acting
Director of the Office of
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New York, New York

PREFACE

Five and certainly ten years ago, a workshop entirely devoted to the topic of credit by examination would have generated little interest and no excitement. Today, it is an urgently relevant topic.

The workshop idea came to life quickly and without fanfare because it was born out of a sense of urgency and nourished by the need for change. Without change, increased access to the current structure of higher education would simply extend and maintain the present system, which is especially inadequate and ill-suited to many individuals of a late twentieth century America.

We see the workshops as being responses to the Carnegie Commission's recommendation for less time and more options in American higher education, to Clark Kerr's request that bridges be built between higher education and society*, and to the needs of millions of men and women whose life styles insist that they catch their education on the run.

We find genuine satisfaction in this report, because the papers serve to illustrate the importance of credit by examination as a much needed option within higher education and as one important mechanism to close the gap between the campus and the sometimes separate worlds off-campus. In short, the speakers see credit by examination as an important passage through the artificial barrier which too often stands in the way of those who have not taken the traditional route to learning.

It is indeed appropriate that the College Entrance Examination Board and the Western Interstate Commission for Higher Education should join in providing a forum for these workshops, since each organization has in its own way concerned itself with the movement of students into college and with increasing that access whenever possible.

*Clark Kerr, Keynote Address, Twenty-Sixth Annual American Association for Higher Education Convention, Chicago, March 1971.

We hope that responses to the messages in the following works will be no less than the implementation of credit by examination programs in those institutional settings where they do not currently exist.

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Western Interstate Commission
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J. Quentin Jones, Assistant Director
Denver Office
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Board

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1971

George H. Hanford

is the Executive Vice-President and the Acting Director of the Office of External Degree Plans at the College Entrance Examination Board, New York, New York.

"Nontraditional study and the external degree can have a myriad of meanings. . . ."

"In the months, and, perhaps, years ahead, many external degree programs will be proposed and a goodly number established. In the end a few substantial ones will have survived, and higher education will somehow have been changed as a result."

The Ultimate Development of Credit by Examination

THE EXTERNAL DEGREE

George H. Hanford

I have frankly had a very difficult time deciding whether to talk with you about hula hoops or miniature golf. Both have been fads in my lifetime and took the country by storm--in much the same way that the external degree promises to become the current "thing" in higher education. I have decided to go with the miniature golf analogy. After a period of meteoric popularity a few of the more substantial efforts survived and have become a permanent part of the family-outdoor-entertainment scene. In somewhat the same way, I suspect, the eternal degree will have a period of high visibility in which it will generate a high level of controversy among comfortable faculty members who will feel threatened and a high degree of popularity among harried administrators with an outlook for the fast foundation buck.

Having fought to gain his place in the sun and finally having gotten his salary to a comfortable level, what faculty member in his right mind is going to look with favor on being replaced by a syllabus, let alone a video casette? And what college or university administrator, knowing that the Carnegie and Ford Foundations have evinced an interest, can resist the temptation of the inference that there is manna to follow? External degree, huh! I'll take one—What is it?

In the months and, perhaps, years ahead, many external degree programs will be proposed and a goodly number established. In the end a few substantial ones will have survived, and higher education will somehow have been changed as a result.

But this is 1971 and, in a curiously circular way, the external degree is at one and the same time *just* a specialized case of the topic of this workshop—credit by examination—and the ultimate proof of it.

The incipient fad couldn't be incipient if it were not for the proven success of credit by examination—external examinations like the Advanced Placement and College Level Examination Programs. And yet the external degree is the ultimate proof of the pudding—of the willingness of the academic community fully to accept the concept of credit by examination, to award its most meaningful credential—the degree—in recognition of study done and learning achieved in nontraditional ways.

Having described the external degree as a fad in order to make one point, let me hasten to make another. I do not perceive the external degree as a fad but as an opportunity—important leverage for needed change.

Last spring, foreseeing both the opportunity and the danger, the Trustees of the College Board and Educational Testing Service requested their staffs jointly to explore ways by which the opportunity could be capitalized upon and the dangers minimized. On the basis of some hard, creative work done by Jack Arbolino and his colleague, John Valley at ETS, we came up with a two-pronged approach. On one hand, we wanted to provide services immediately, albeit selectively, to external degree programs being established which relied in part or in whole on external examinations. On the other hand, we wanted to establish a mechanism for insuring that the opportunity does not degenerate into a fad, for insuring that appropriate, educationally sound procedures are established and practices followed. We were determined to design appropriate, educationally meaningful models.

To handle the service prong of this approach we have established an office of external degree plans. I am here speaking to you, I suspect, wearing my temporary hat as acting director of that coordinate CEEB-ETS office rather than wearing my more permanent hat as executive vice-president of CEEB. The other prong has emerged in the form of a Commission on Nontraditional Study—a national, broadly representative, deliberative body being established under a $140,000 grant from the Carnegie Foundation. And while it will, as I have suggested, by exploring the external degree idea,

it will, as its name suggests, be exploring the external degree as a special case of nontraditional study. That consideration will be undertaken in much the same, albeit broader, sense I suggested earlier with respect to the external degree as a special case of credit by examination.

In preparing these remarks it occurred to me that at this point I could probably sit down and get away with it. In the end we'll probably all wish I had. Up to now I've been able to deal with three broad concepts and two specific activities—or, in reverse order, with the Office of External Degree Plans and the Commission on Nontraditional Study on the one hand and credit by examination, nontraditional study, and the external degree on the other. I won't belabor the first two. I'll just speak from the platform they provide.

But think about the last three ideas. If you have listened, as I hope most of you *have* done and if I have been reasonably effective, which I can only hope I have *been,* you have heard me talk about credit by examination, nontraditional study, and the external degree and have been led to believe that you and I all know what I have been talking about. The fact is that *I* have only a *vague* idea, and you will have about as many different ideas as you have names.

Take the external degree. If you did your homework and read Allan Pifer's paper—or read *Newsweek* a couple of weeks back—you could be thinking of Britain's Open University with its unique system for delivering college-level education—or Australia's. Or if you're behind the times, you might be recalling the external degree which the University of London used to service the Empire. Or were you thinking of the University of Oklahoma's program—or Goddard College's? Or maybe you've heard of George Dillavou's external degree plans for Roosevelt's College of Continuing Education. Perhaps you have been trying to interpret the real meaning of the vague references that seem to be popping up nowadays in state master plans and political messages on higher education. Or if you had known *about,* would you have been thinking *about* the National College, Incorporated, based in Florida; the International University; or the College of Individual Learning—all in one way or another proposals for correspondence courses validated by CLEP. Or have you been worrying about diploma mills?

Then take nontraditional study. What does it mean? Antony-

mously, I guess it means any kind of education that is not delivered on a campus in a classroom or laboratory by the lecture or seminar method. It means independent study, correspondence, reading—in a library or at home; or learning via the news media—with audio only or audiovisually by phonograph, radio, or television—open or closed circuit, by record or casette. And it can mean learning on the job, in military service, or from just plain living. Or you could be thinking of it in terms of Texas State Technical Institute which gives credit and a degree for study done in the classrooms of the Convair Corporation in San Diego.

My points, I trust, are clear. Nontraditional study and the external degree can have a myriad of meanings. And in that confusion over meanings there is danger of higher education, private enterprise, and the media running off in all directions at once. There is the danger of dilution of the educational process, danger of the lowering of academic standards. In the interests of providing some kind of national perspective and of maintaining standards, we have established a Commission on Nontraditional Study.

But though the precise definitions of the external degree and nontraditional study remain to be made, at least we know what credit by examination means. Or do we? I guess that's why we're here—to explore the concept together. I look forward to the process.

Lyle C. Gainsley

is the Director of Admissions
and University Registrar at
the University of California,
Berkeley, California

"I suspect that for many students the traditional method of course accumulation is simply an exercise in endurance. For them, credit by examination would provide a more meaningful alternative for course or subject certification."

"The times require a willingness, even a daring, to experiment with different approaches that may prove to be more responsive to the life and learning processes of students."

Resistance to Accepting Credit by Examination

OPERATIONAL FACTS OF LIFE ON INSTITUTIONAL INERTIA

Lyle C. Gainsley

I must state at the outset that the views I plan to express are my own and are not necessarily views representative of the University of California. Just why I was invited to participate in this conference is not at all clear to me. Surely many others are more qualified than I to speak about the uses of examinations.

However, if I might hazard a guess, someone has probably identified me as a "true believer." That is to say, I am vitally interested in students having a greater number of options available to them, serving their educational pursuits, whatever they may be. In my opinion, a more extensive use of examinations could lead to more appropriately designed educational programs for the individual student. So I ask you to keep in mind that I speak to you not as a psychometrist with a sound knowledge of educational measurement but as an administrator whose personal judgment and attitude favor extending the uses of credit by examination.

The practice of granting credit by examination has been around for a long time. Today there are systems of education in the world where courses of study are simply the means of preparing students to pass examinations for degrees or certificates. Assuming the student is able to stay with his educational objective, this pattern would seem to be a sensible approach to evaluating the success of a formal educational program. As a corollary, we might observe that many professions require passing of standardized examinations prior to practicing the profession.

In American undergraduate education, the successful completion of a program is most generally determined by an accumulation of individual, often unrelated, course evaluations. An academic record is maintained showing the student's successes and failures. Perhaps it should show only his successes, but that's another subject. In any event, we all recognize the value and importance of these course entries in the American higher education scheme. The problems associated with student mobility, program articulation between and among institutions, and course validation calls for some rather precise recording systems.

When an institution graduates a student, in effect it certifies the attainment of certain competencies and skills, often not very well defined. In general, we assume these have been acquired as a direct result of successfully passing over a certain number of course requirements, and, when the requirements are totally satisfied, the student is awarded a degree. I don't plan to use this forum to argue the merits of this process, although I would guess that a substantial majority of students are well served by these methods. However, I suspect that for many other students the traditional method of course accumulation is simply an exercise in endurance. For them, credit by examination would provide a more meaningful alternative for course or subject certification.

Although the principle of credit by examination is an old one, it is used sparingly in most institutions. Why? Well, first the procedural detail associated with challenging a course requires a certain boldness by the student. Secondly, it is believed that if too many students should be successful in their efforts, doubt would be cast on the value of the course being challenged. And thirdly, perhaps in a more subtle fashion, the reduction in course enrollments might have an adverse effect upon departmental budgets. Whatever the reasons, since the days of Robert Hutchins at the University of Chicago, institutionally administered programs of degree acceleration through examinations have not been widely used.

I believe it is safe to say that many faculty are suspicious about granting credit on the basis of a single examination. Their suspicions are often reinforced with the view that the experience to be gained from their particular course cannot be obtained except by regular class attendance. I respect that view, but I don't happen to share it.

In most institutions, the faculty is vested with the authority to

determine the content of degree programs. This is as it should be. But the effect of faculty control is that it becomes terribly difficult to obtain the consensus necessary to bring about needed changes, even with strong and courageous academic leadership. I hold out precious little hope for any widespread development of institutionally initiated programs to increase opportunities for credit by examination. I tend to accept this as an operational fact of life. Consequently, I am supportive of externally developed programs which might shake up the citadels of institutional inertia.

I am a long-standing advocate of the CEEB Advanced Placement Program, not for placement purposes alone, but, more importantly, for the granting of appropriate advanced standing credit. I think it is dishonest to acknowledge advanced placement without giving proper credit recognition for degree acceleration. The record for this program is excellent. The increasing numbers of students taking advantage of this opportunity are among the most successful students in higher education. Institutional standards have not been destroyed in the process, as was earlier feared, nor has the integrity of the degree been damaged.

I was encouraged to learn a few years ago that the College Board would undertake to extend its examination programs to include tests of general and subject competence at the college level. They are to be commended for undertaking this most worthwhile endeavor. Life is not very comfortable on the cutting edge of change, and CEEB appears to have quietly absorbed the usual abuse associated with a bold venture. Critics notwithstanding, there is little doubt that a program like the College Level Examination Program is long overdue in this country. I am personally hopeful that they will receive the support necessary to continue and extend the many benefits to be derived from a nationally recognized college level testing program. To indicate the extent of my commitment, even my conservative heart responds by suggesting that a program of this variety is of sufficient national importance to merit substantial support by the federal government. It should be more widely used immediately to improve access to higher education for the "nontraditional" or "unaffiliated" students. Thus, admission policies should be revised without delay to give appropriate recognition to credit earned by examination. It should be looked upon as equally standard and desirable as credit earned in the traditional manner. It should be encouraged and not viewed as an undesirable alternative that is grudgingly granted.

Another potential dimension of the College Level Examination Program would be its application for currently enrolled students. As an opener, why not permit the general examinations to be used as a substitute for the general breadth requirements? Satisfactory scores in any or all of the five general examinations might excuse the student from corresponding degree requirements. Consideration should be given to the subject examinations, as analyzed and approved by each department concerned, or until equivalent institutional examinations are developed. Related to this point, should there really be any difference between granting credit for courses completed at other institutions and credit earned through validation by externally administered tests? To do so would seem somewhat inconsistent. We place considerable faith in mutual acceptability of credit earned in a collegiate setting, but we seem to be unwilling to extend this confidence to reputable testing agencies.

Further, there are the diagnostic opportunities offered by these tests that might tend to promote more effective academic advising. Students who do poorly on the examinations might receive better counseling about the direction of their study programs to correct weaknesses in their general education.

These are simply examples of some obvious uses of standardized college level examinations. The range of possible applications for the tests within an institutional environment can be greatly expanded through the collective imagination of the educational community.

Many words are being offered these days from all kinds of agencies on the general theme of what is wrong with higher education. There are the excellent reports of the Carnegie Commission; tracts about the open university, the extended university, and the external degree; and the many reports of campus, local, state, and national commissions. It becomes obvious, as these recommendations are considered collectively, that higher education is expected to be all things to all people. We can also safely conclude that interest is high, support is low, and wisdom is as scarce as ever.

The consistent plea running through most of these reports is for some kind of change, and there are recommendations for restructuring the educational program to give attention to individual student differences and to a more efficient use of their time. When these recommendations are coupled with burgeoning enrollments and

dwindling resources, institutions are challenged, perhaps as never before, to search for solutions to these many issues.

As institutions reexamine their goals in the light of their resources, I would guess that we will see an increased recognition and use of credit by examination. Vital to this anticipated increase is a nationwide testing program which provides the advantages of visibility, immediate utility, widespread scrutiny, and institutional validation. At this point in time, we are suffering the labor pains of a reexamination of society's credentialing process. As soon as mounting evidence conquers current negative attitudes, tests will certainly become a well accepted method of certifying levels of knowledge, skill, and competency.

There is a delightful quotation from *The Sleepwalkers* by Arthur Koestler that I want to share with you, because I believe it is pertinent to the subject at hand.

> The inertia of the human mind and its resistance to innovation are most clearly demonstrated not, as one might expect, by the ignorant mass—which is easily swayed once its imagination is caught—but by professionals with a vested interest in tradition and in the monopoly of learning. Innovation is a two-fold threat to academic monopolies: it endangers their oracular authority, and it evokes a deeper fear that their whole, laboriously constructed intellectual edifice might collapse. The academic woodsmen have been the curse of genius from Aristarchus to Darwin and Freud; they stretch a solid and hostile phalanx of pedantic mediocrities across the centuries.

Since my oracular authority is meager at best, my trauma when faced with the need for change is not of the magnitude described by Koestler. Surely we must be willing to discard the tried and true ways which have served us well in the past, but which are no longer viable. The times require a willingness, even a daring, to experiment with different approaches that may prove to be more responsive to the life and learning processes of students. If we fail to meet the challenge of the times, then and only then will our laboriously constructed intellectual edifices collapse.

Alice Thurston

is the Director of Institutional Research and Student Personnel Services at Metropolitan Jr. College District in Kansas City, Missouri

"As time goes by, I suspect that more and more community college students will be studying in their homes via television or other media. So, I think it is **essential** that we assign credit for whatever a student has learned by whatever informal means."

"This is particularly important and necessary for the adult student who is interested in saving both time and money."

Community Colleges and Credit by Examination

EXTENDING APPROPRIATE LEARNING OPPORTUNITIES

Alice Thurston

My interest in credit by examination goes back to the time of my own doctoral work, which at that time could be completed almost entirely by examination. It was really a very delightful experience. At that time, I had a full time job, was raising a family, and would probably never have made it had it not been for the credit by examination operation.

There were no required course hours for the doctorate. You discussed with the members of your advisory committee what they thought you should do. If you asked whether or not you should take a particular course, they might suggest that you sit in. Everything hinged upon the comprehensive examinations. If a person walked in off the street and could convince the graduate council that he was ready to sit for the comprehensive examinations, they would often say that they needed a month to prepare them, and then he could take them.

My assignment is to talk about credit by examination and its application to community colleges. If you know community college educators, you know it would be difficult for any one of them to stand up here and not begin by talking a bit about community colleges.

All sorts of adjectives and phrases have been used to describe the two-year college, but I think one of the best is that which describes the junior college as the "swinging Cinderella of American higher education."

Community colleges are supposed to be innovative institutions, nontraditional institutions, and I think in general that they are.

I want to tell you a little bit about the development of community colleges in the last decade to help you understand what community colleges are trying to do, and how credit by examination is a way to help them to implement some of their goals in extended services.

Junior colleges were really sleepers prior to World War II. After that there were many factors and events which gave rise to the community colleges as they now exist—the G.I. Bill, the growing demands for higher education, the technological revolution (which increased the need for technical and semiskilled workers), and probably, also, the increasing selectivity of the four-year colleges and universities.

Junior colleges responded to these forces in a number of ways, one of them being to open wide the admissions doors and all the implications that come with that. New colleges were started to the point where, now, we can find a community college within commuting distance of most Americans. This has been a tremendous achievement. Working with local business and industry, literally hundreds of career-oriented programs have been established by community colleges. As one wag said, the community college now deals with people from "womb to tomb."

As a result, community colleges doubled in number in the sixties and more than quadrupled the number of students during the same period. Approximately two and one-half million students are now enrolled in credit courses. Thousands more are enrolled in noncredit course work.

About half of these people are adults, and it is this age group that I think about when we talk about credit by examination. Community colleges are working hard to improve their instruction. They are developing special programs and services for disadvantaged students and for veterans. They are reaching out into the community in all sorts of ways. The whole idea is that we are here, the door is open, and if you would like to come to school, you're welcome. We're even doing better than that because we're reaching out, finding people, and encouraging them to come to school.

For some time community colleges have been operating not only

on their campuses, but in store fronts, in business and industry, in government buildings, and in neighborhood centers. As time goes by, I suspect that more and more community college students will be studying in their homes via television or other media. So, I think it is *essential* that we assign credit for whatever a student has learned by whatever informal means.

This is particularly important and necessary for the adult student who is interested in saving both time and money. I used to teach evening classes in a community college, and I asked the students to state their most pressing problem. Their answer was always time—time to get the studying done, time needed to complete a program on a part-time basis. If a student can only take two classes per semester, the time for completing his program stretches on and on and on. If one must take all of the work in the classroom, the end often seems completely out of sight.

It also becomes a very expensive process, because in the meantime the women are having babies, and many are putting their own children through school. Time and money are both critical factors.

I think there are some special problems in offering credit by examination, some of which are peculiar to the community college and some for the senior institutions. First of all, if credit is to be determined by departmental examinations, it becomes difficult to measure the affective values that hopefully have developed. I talked not long ago to a history instructor who said he was disturbed because he really didn't know how to measure affective learning in his examinations. So he just left it out.

In a multi college, multi campus district, such as ours, the fact that each department makes up its own examinations leads to an uneven use of credit by examination because the same exam is not used on all campuses. Students quickly learn for example that you go to the downtown campus for certain courses because the examinations there are easier than those given for the same course on the western campus, although the same amount of credit is given in both places.

I think a big stumbling block is the fact that most faculty are reluctant to approve a credit by examination policy because they feel that you can't really know the subject unless you come and sit at the instructor's feet. And you have to sit there for the entire semes-

ter. This, I suppose, is a carry-over from the old German idea where Herr Professor entered and all of the students rose to their feet and paid homage. A lot of ego is involved in the business.

Another difficulty of credit by examination is the use of a standardized examination at the end of a very innovative course—for example, an interdisciplinary course. To be appropriate in such cases, an examination would probably have to be created by those involved in teaching the course. Courses taught by the systems approach present the same kind of difficulty, because the final examination should really include all the instructional objectives built into the syllabus.

The junior college has one other special problem, and that has to do with the transferability of credit granted by examination. Community colleges have been peculiarly sensitive to the problem of transfer of credit even though traditionally the college may see 30-40 percent of its student body transfer. We worry about whether the four-year college will accept the credit or not. Here we have to work with the other institutions in the region. How should we record credit by examination on the transcript? Do we enter credit by examination, which can open up all kinds of questions, or do we simply note English 101 or 102 with appropriate credit and let it go at that?

Another problem has to do with the cutting score, and, as you know, a variety of cutting scores are used. Some colleges are giving credit for performance at the 25th percentile, while others are using the 50th or 75th percentile. If we decide we'll use the 25th percentile on the sophomore norms, will the university recognize it and grant the student that credit when he transfers?

This is a real problem, and I think it can be solved in one of two ways. Either all of the colleges in the region will accept what the community colleges do—honoring and recognizing their integrity and accepting their judgment—or, as Quentin Jones knows from our experiences in Cleveland, we can try to get all colleges in the area to accept a common cutting score across the board. Without consensus on one or both of these agreements, the junior colleges are in an untenable position.

Perhaps you would like to know a little about the progress we have been able to make at the Metropolitan Junior College District in

Kansas City. We have three community colleges in the district. Last year, the dean of instruction recommended that we have a credit by examination policy. This year, we moved toward the creation and implementation of the policy. The Instructional Coordinating Committee of all three colleges appointed a task force to study the concept and to make a specific recommendation.

On the task force were the dean of instruction, the dean of student personnel services, a representative of the central staff, members of the faculty, and counselors. First, we made a thorough study of what was happening in Missouri and neighboring states. In addition, we called upon the staff of the College Entrance Examination Board to insure that we were briefed on the operation of the College Level Examination Program and the content of the examinations. Inspection copies of the examinations were provided for the faculty. Finally, the members of the task force sat down and produced some very specific recommendations for the Instructional Coordinating Committee.

The following recommendations were subsequently approved by all concerned and are now college policy:

1. Current guidelines provide that up to 30 hours of credit may be granted on the basis of the College Level General Examinations and that credit so awarded can be used to satisfy many of the general education requirements for graduation.

2. Credit will be awarded to all students whose scores fall at or above the 25th percentile on the national sophomore norms—the recommendation of the American Council on Education.

3. Credit awarded for satisfactory performance on the College Level General Examinations will be recorded on the official transcript by broad subject areas; e.g., humanities.

4. Credit awarded for satisfactory performance on the College Level General Examinations will be treated as transfer credit, that is, without tuition or other special charge to the student.

5. All academic departments are asked to study and recommend use of the College Level Subject Examinations. Where standardized examinations do not exist, departmental examinations may be substituted.

George J. Dillavou

is the Dean of Continuing Education at Roosevelt University, Chicago, Illinois

"I think you'll agree . . . that those at the top of our educational power structure are the ones who are saying that the time has come for the external degree."

"For most of us, credit is something you enter on a transcript in numerical terms, except that it really isn't."

"In our Bachelor of General Studies program at Roosevelt, we depend in no way on the number of credits that appears on the transcript."

Credentialing Life Experiences through Credit by Examination

THE GREAT CHALLENGE TO HIGHER EDUCATION

George J. Dillavou

While I am talking, I'd like to ask you to suspend what you believe higher education to be, if that is possible. I suspect it is not really possible, but try, because I want you to look at some other possibilities of what higher education, particularly continuing education for adults, is, will be in the near future, and might be in the long term.

I shall begin by reading a passage written by a writer I consider to be a real radical, Ivan Illitch, who runs a kind of think tank in Mexico and who has been setting the academic world on its ear lately by advocating the abolition of all schools. In the January 7 issue of the *New York Review,* his article, "Education Without School: How It Can Be Done," contains the following passage:

> A good educational system should have three purposes: It should provide all who want access to available resources at any time in their lives; empower all who want to share what they know to find those who want to learn it from them; and finally furnish all who want to present an issue to the public with the opportunity to make their challenge known. Such a system would require the application of constitutional guarantees to education; learners should not be forced to submit to an obligatory curriculum where there is discrimination based on whether they possess a certificate or a diploma; nor should the public be forced to support through a regressive taxation a huge professional apparatus of educators and buildings which, in fact, restricts the public's chances to learn. To the services this profession is willing

to put on the market, they should use modern technology to make free speech, free assembly and a free press truly universal, and therefore, fully educational. Schools are designed on the assumption that there is a secret to everything in life, that the quality of life depends on knowing that secret, that the secret can be known only in orderly succession, and that only teachers can properly reveal these secrets. As an individual with a schooled mind conceives of the world as a pyramid of classified *passages* accessible only to those who carry the proper tags, new educational institutions would break apart this pyramid. Their purpose must be to facilitate access for the learner, to allow him to look into the windows of the control room or the parliament if he cannot get in the door. Moreover, such new institutions should be channels through which the learner would have access without credentials or pedigree, public places in which peers and elders outside his immediate horizon now become available.

That's pretty drastic, and it attacks an establishment that all of us are part of. Yet, I think many of us within the institution are beginning to question some of the traditional methods of what education is and what constitutes a degree.

As I listened to the questions posed to the previous speakers, it was perfectly clear that maybe some of the questions have not been properly phrased. One very penetrating question raised the issue of how one assigns credit for life experience. It's a very important question and one with many ramifications.

First of all, we need to have a definition of credit. For most of us, credit is something you enter on a transcript in numerical terms, except that it really isn't. It doesn't always appear that way and, in my opinion, probably should not. But that's the system we use now. If you were to go to Johns Hopkins University for a doctoral program, didn't quite finish, and wanted to transfer your transcript from that institution to another, your transcript would say simply, "pursued graduate study." That's all! Anyone unfamiliar with Johns Hopkins might jump to the conclusion that you had flunked out.

Five and one-half years ago when I began to wrestle with a special degree program for adults at Roosevelt, it occurred to me that perhaps we should not use the term, "credit for life experience," because that is not really what universities are engaged in. Universities are engaged in the enterprise of transmitting theoretical knowledge. Ever since we've been in the business at Roosevelt, we've been very careful to say, "credit for theoretical knowledge gained through

life experience." But that does not stop the little ladies from coming into my office with a sheaf of certificates proving they wound Red Cross bandages in World War II, that they were the motivating force behind the founding of a sewing club, and that they were president of the local garden club. They all want to know how much credit we're going to give them for that. I point out to them that very little of that kind of activity produces much theoretical knowledge.

Yet, they may have a point. Within the structure we have today, however, you can't really assign so much credit for having knit a sweater for a son-in-law. It just can't be done in the present system. Maybe in the future it could be.

At Roosevelt University we have an adult degree program quite different from the one described to you earlier. Goddard College was the original motivator of special degree programs for adults, followed not long after by the University of Oklahoma. Brigham Young University's program follows the Oklahoma model; the University of South Florida has taken it with some additions and alterations; and sitting there all by itself in Chicago is Roosevelt University, although we are likely to have a companion this fall—the University of Toledo.

In thinking about the design of such a program, it occurred to us that there are operations within the structure that fail to make much sense. Beginning in the third grade we teach people to start counting and to scrounge—scrounge for every unit all the way through high school and for every credit hour in college. Finally, when we collect 120 or 125 or 130 credit hours, magic occurs, a sheepskin appears. And we are considered "educated." It seems to me that education could be measured in other ways. At Roosevelt we are trying to measure education without counting credits.

Because our university is basically the same as all others, we can't avoid willy-nilly the use of credit, and, furthermore, being a private university, we're interested in money. We wouldn't know what to charge students if we didn't rely to some extent on the credit-hour system. But what we could do is to ignore the figure at the top.

In our Bachelor of General Studies program, we depend in no way on the number of credits that appears on the transcript. We

have four blocks of knowledge which we consider essential, and we measure the student's progress in terms of the completion of those blocks.

The program begins with a Pro-Seminar for the adults. We've defined an adult as a person 25 years of age or older, purely an arbitrary decision. We decided on the term, "Pro-Seminar," partly because no one knows what it means, and as a result we're not locked into a tight academic situation.

We call the instructors preceptors because that, too, is not an academic term; and, again, no one really knows what it means. We can pay them what we need to to get quality without being locked into a rigid salary schedule that identifies teachers or professor, assistant professor, instructor, etc. Since no one has heard of a preceptor, no one really knows what he's worth. As far as we're concerned, he is worth whatever it takes to get him truly interested in working with adults.

The adults enter the Pro-Seminar, and we try to get them over their fears as soon as possible. Most of them have a great deal of hesitancy about their ability to succeed at the college level, and we know that fear can interfere with learning. Therefore, we spend a good deal of time helping them to realize that their minds have not deteriorated, and, in fact, are better than ever.

Then, we subject them all to the General College Level Examinations. That's almost inhuman, because they are not easy as you will know if you've looked at them or have taken them yourself. The exams are administered early in the seminar because we want to have the results in our hands well before the end of the course. We also use a diagnostic reading instrument.

Having done that, we then embark on the major portion of the Pro-Seminar. Each preceptor teaches from texts of his choice. We tried to standardize the materials used in the course, but each preceptor has his own outlooks and attitudes and is, therefore, free to use whatever text materials he considers appropriate for his area.

The students begin their studies around the central theme of what it means for man to know. That portion lasts for roughly eight weeks, during which time the students write papers. The preceptors are quick to point out that even students in this program can't get

through college without recognizing a footnote or organizing a dozen bibliographies, no matter what degree they want to receive. All faculty members insist they know these things, and I suppose they do have some value.

Near the end of the Pro-Seminar, the preceptor sits down with each individual student and helps him plan his course of study. By that time, we have the results of the College Level Examinations and the reading diagnosis. Both are fully explained to the student, and his past educational record is considered, too. That's not really very different from what the other universities do. Where our program seems to differ is in the next phase, known as the Area of Concentration.

Most of the adult degree programs in the country put students into a general liberal education, which offers a great amount of knowledge about a lot of things but fails to permit the student to study in depth. We make 14 areas of concentration available to our students, ranging from computer technology and business to literature and philosophy.

The program leading to the degree, Bachelor of General Studies, began in the fall of 1966 with exactly 100 students. As of next Monday when a new semester begins, we will have 1400 students enrolled. That's a fairly rapid expansion, but we've been successful. Now we've been given approval to design additional areas of concentration for those who are unhappy with the choices available. If a student wants to study physics, which we do not offer at the present time, we can arrange that course of study for him by planning with the head of the physics department, who will design the area of concentration the student will pursue.

On the basis of the Pro-Seminar and the College Level Examinations, we don't make the students take the usual general education courses that are so much a part of the Bachelor of Arts degree. It seems to me that what most institutions are saying when they set forth their general education requirements is that it is necessary to put 17- or 18-year-olds into a holding pattern for two years, during which time they will have a chance to grow up. In the holding period students are offered such piddling little courses that they are bored to death. Adults are bored, too, in most programs. Many won't go through them.

But we've assumed that there must be some value in all of that, so we have kept a series of seminars, each worth six hours of credit, in the areas of the social sciences, the natural sciences, and the humanities. These are integrated seminars in that they are all team taught. Their curricula reflect all the departments and disciplines within the broad area.

Take natural sciences, for example. Professors from the fields of biology, chemistry, and physics discuss with the students what their fields are, what their concerns are, how they seek to discover new knowledge and solve current problems. They don't go into the laboratory and cut up frogs. Adults don't need that kind of experience. They do listen to the biologist, the chemist, and the physicist, and they perceive how these specialists think.

Near the end of the seminar, all three of the scientists and the students decide on a problem area, such as the human heart, and each of the disciplines examines the heart and its function from its point of view. The same approach is used in the humanities and the social sciences.

At the very end of the seminar, because of our setting as an urban university, we have an internship in community service. The students are exposed to theory in the classroom for one hour one evening each week, and on another evening each week they must find a job (with our help, if they want it) doing volunteer work in their community. It can be coaching a Little League ball club, it can be selling tickets for the Lyric Opera, it can be working in a hospital, or it can be any one of a number of things. What that requirement does is to insure that all of our students know how to volunteer their services to the community.

When the student has completed the Pro-Seminar, his Area of Concentration, the Integrating Seminars, and the Internship, we award him the Bachelor of General Studies degree without counting how many credits he has accumulated.

Invariably, we are asked the question, "Is the BGS degree any good?" Students ask the same question. When I hear it I usually respond by suggesting that along with all the other bachelor degrees we offer, the BGS degree is just one more.

Then they want to know if they can use it to enter graduate

school. The answer to that is that we have 135 graduates as of last Sunday and 70 of them are in graduate school. Several students have already completed a master's degree program—one at the London School of Economics and others at the University of Chicago. Perhaps our most famous graduate is Irving Kossy, who at the age of 46 began the BGS program, graduated, completed the master's degree, has nearly finished his Ph.D., and is presently teaching on our faculty. In the course of his college career, he sold his automobile upholstery business so that he could be a full-time student.

That describes our Bachelor of General Studies program. I've lived with it for over five years, and I no[illegible] consider it to be old-fashioned. In the course of dealing with the adult students, I ran into a great many of them who had collected 90, 100, 150, 200, and 250 credit hours over periods of time and who still had no degree. It struck me that there must be some way to help these people obtain a degree. In looking over their transcripts, I noted that most of them had completed a sequence of work in the humanities, the social sciences, the natural sciences, and they had covered all other basic areas. All they lacked was a major. We then came up with the idea of putting them into one department for 27 hours of work. That gives them a good solid major. We give them our Internship in Community Service, and we let them out with the Bachelor of General Studies degree.

It's so simple. One of the advantages of being essentially a lazy person is that you're always looking for the easy way to do things. The universities I've had contact with always seem to do the opposite. The more red tape, the more regulations, the more rules, the more you can complicate it, the more academic you become. I can't quite agree with that, for when I think about what a degree is, what higher education is, I come back to the belief that there must be a way to provide a credential other than by involving a hundred secretaries to process one student. There has to be a better way.

Another program which we have established is one we're calling "Discovery." Designed for the extremely bright self-learner, Discovery will make it possible for him to go to graduate school whether or not he ever finished high school. The minds of our faculty were really boggled by that idea! "Absolutely not!" they said. "How could anybody without a degree consider entering graduate school?"

We had been using the College Level Examination Program for

several years, and we were satisfied that it was the finest thing ever invented in the field of testing in higher education. We knew that CLEP was a good predictor. Those who achieved high scores on CLEP would do well in their work, while those with lower scores would have to work harder and would not do as well.

It was our thinking that if we gave people the College Level Examinations and then took only those who scored above the 90th percentile, we'd have a pretty exceptional group. When we found people who achieved that level, we talked with them about their interest in going to graduate school. These were people who had spent their entire lives learning, but who had nothing on paper. Instead of watching TV, they picked up a volume of Shakespeare or a book on philosophy.

After we identified these people via CLEP, we asked that they take the Graduate Record Examination, and if they scored above the 50th percentile, we really took an interest in them.

At this point the associate dean and I talk with them. We will involve our graduate faculty and construct a semester-long tutorial program. At the end of the semester, if all concerned agree that the person is truly able, we recommend him to the graduate school for admission to the standard master's program in a given department.

When first proposed, this plan brought about absolute horror, but it has since been approved. It would never have been launched if our own students in the BGS program hadn't been so good.

We now have seven students through the Discovery program and in the graduate school, largely because of the high standards we established. As a result we have literally blown the minds of the faculty who have worked with these students after they were in graduate classes. They still find it hard to believe that there are people this bright who have not spent 20 years in a classroom to achieve such a level of attainment.

We are demonstrating that these people do exist. Yet, this solution will never be popular in the ordinary sense. It is expensive to operate because the student fees cover only two-thirds of the total cost. Perhaps sometime in the future we can lower the require-

ments, but, for the moment at least, I want to make sure all we choose to demonstrate our theory can make the grade.

So far I've described programs that are already in existence. What I'd like to do now is to create an external degree. I think you'll agree from listening to the other people here that those at the top of our educational power structure are the ones who are saying the time has come. It's the people farther down that aren't so sure. The University of London has been awarding external degrees for a hundred years, and we criticize their system as being behind the times. But obviously it is not—at least in this area.

Recently, I submitted a proposal which would allow Roosevelt University to offer an external degree by next fall if we could obtain adequate funding. It would be comparatively simple. We have the basic structure already in existence in our BGS program. In addition, the Division of Correspondence Study has been transferred to our college and renamed the Division of Extended Services because the term "correspondence study" still has a bad ring to it. We can use this beginning to establish a program that could be international in scope.

Using that basic format as described and restructuring the Pro-Seminar, we could offer a degree by correspondence. Certainly, we could do the same in the area of concentration. Here the problem becomes one of selection. You can't begin with 14 or 100 concentrations. You must begin with one. So, I have settled on a concentration in community services, since everyone in the world lives in some kind of community. It may be a community of 2 or 10 million. Whatever the size, everyone can provide some kind of service for that community.

The program of study would consist of five upper-division courses in public administration, five upper-level courses in sociology, and five upper-level courses in psychology. As a result, students should have a good base from which to grapple with a community on a practical, political, and theoretical level.

The seminars in the natural sciences, the social sciences, and the humanities can also be adapted to correspondence work. Our internship would probably have to be replaced by some kind of a senior project. When a student had completed all of these require-

ments satisfactorily, he would be given the diploma whether he ever saw Roosevelt University or not.

Strange things are happening in the world we live in, and I think those of us in higher education are further behind than a lot of other people. I'm talking primarily about the area of technology. We still seem to think there is nothing but a book, a pencil, and a piece of paper to aid us in imparting knowledge.

In the external degree program, I would hope we would employ those devices and tools that are now available and that will be available in the future. Today it is possible to buy a tape recorder for $30 to play tape cassettes that can go back and forth between a professor and student carrying on a running dialogue. Another device on the market costs $50. It not only plays the cassette, but also displays on a screen slides or pictures that relate to the topic being discussed on the tape. More expensive items such as a video recorder are available, but the present cost is prohibitive for general use. When the price drops to a reasonable level, such equipment will make available to anyone anything that has ever been put on educational TV. Microfilm and microreaders are generally available, and one can find a 1,000 page book on a three by five card.

All of these educational tools and more are available and can be put to use in an external degree program. I for one want to take advantage of technology in making learning more interesting and more effective than it has been in the past.

In addition to the external degree is another concept that I think is very interesting. I don't suppose it would work for a rural university, but there are plenty of urban universities in this country. I have in mind an urban learning center. We developed libraries about the time of Ben Franklin, and we all accept the library as part of the community. Yet, we don't use libraries very well. We open the doors at 9:00 a.m. and close them at 9:00 p.m. For twelve hours those books and magazines are locked up, and no one can get at them.

On the same principle, a university could operate a learning center which would be open 24 hours a day. At its heart would be a computer and computer terminals. A student could enter and select a lecture or a lesson which would appear on a screen in front of him. If he wanted to ask the professor or lecturer a question, he could

push a button in his carrel, and it would be relayed to the professor's office where it would be stored until the professor could respond in a similar manner. By the same token, the entire Library of Congress could be made available to students in the urban learning centers. By pushing a button or buttons, a book, a periodical, or pages from a book could be displayed for the student at any time of the day or night.

The learning center would not interfere with teaching faculty, nor would it affect the faculty by extending their working day. It would open up the library and learning to the entire community with the possibility of studying, learning, and earning a degree at any hour of the day or night. We seem to think that learning should be restricted to the daylight hours. I consider that wrong. There must be millions of people who can't take advantage of a university or its library in the daytime. They have jobs that don't fit those hours. They may be salesmen and have to make evening calls. All sorts of things interfere, and most universities have done very little to reach and accommodate this audience.

These are but a few of the things that I think ought to be done, using CLEP as a basis for awarding credit for what someone has already learned.

Illitch says our present educational structures are closed to too many people. The alternative is to open them to all who are capable. CLEP has opened the door, and those who care to think about it and who want to study our educational system would do well to begin by looking at CLEP and its possibilities. In my opinion, it is the most forward-looking national instrument available to any of us.

Harold G. Clark

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Continuing Education at
Brigham Young University,
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"The Bachelor of Independent Studies degree is based on the assumption that the learner brings to the program minimal and normal abilities which are then worked with and developed on a no-fail basis."

"One basic principle is to treat the adult as an individual human being and tailor the program in terms of his needs."

"The examination is thought of as an aid to teaching rather than a tool of elimination or classification by categories."

A Degree Program Using Credit by Examination

MATURE LEARNERS AND AN INDIVIDUALIZED APPROACH TO EDUCATION

Harold G. Clark

The Bachelor of Independent Studies program, a baccalaureate degree designed for adults, began February 1, 1971, at Brigham Young University with some 25 students. Its broad liberal studies curriculum will be administered in a manner similar to the Bachelor of Liberal Studies degree program at the University of Oklahoma.

The letters of some 50 adults in the process of being advised leave the impression that the degree promises to be a breakthrough for them in educational opportunities. For example, here are comments from one of these letters. The candidate is a housewife living in a small town in northern Arizona.

> How many women there must be who, like myself, left school early to take a job while the husband continued his education. During the nine years my husband worked on his B.A. and D.D.S. degrees, I worked in and out of the home and had babies—and then I'd stay up half the night and stealthily read and ponder every single textbook my husband brought home. When he finally tired of relaying my questions to his professors and bringing back their answers, I turned to the public libraries with a vengeance. Indeed, I ordered so many lend-library books that at last one distraught librarian said to me, "Mrs. ————, you'd save the tax-payers a lot of money if you'd move to Washington, D.C. The Library of Congress is very extensive."
>
> What was missing in my search for knowledge was, of course, the chance to discuss, question, probe, evaluate, and challenge my findings

with qualified instructors. There was no one to help me organize what I learned.

Therein lies the great strength and beauty of your program. It takes into account the measure of enrichment that has already come to the student through experience, and it gives the homebound student direction and correction. Indeed, the degree itself is quite useless, an unnecessary formality; the excitement lies in the opportunity to be challenged by those who know and understand.

A first important goal of the degree is found in what we call the Foundation Skills area of study where the learner assesses and sharpens his working acquaintanceship with basic communicative skills and with ways of thinking and reasoning. Both through assigned and personally selected readings and exercises the student centers his efforts on the learning process in this first area of study. His goal is to learn how he can tackle a subject, explore problems and issues, and answer not only questions posed by the advisor, but answer "questions which he himself asks."

In brief, the degree program consists of: (1) an anxious adult learner, (2) an able advisor and teacher, (3) special guides and outlines prepared by the university, and (4) designated resources available to most Americans in printed materials, lectures, plays, travel, and daily educational experiences in the home and on the job.

Running through the whole educational experience provided by the degree are thread-concepts expressed in such questions as: How well am I communicating? How do I know what I say is true? What is the reality of the world in which I live? Am I doing the right thing? The principal difference between an intellectual and a non-intellectual approach to the problems of life, according to Dr. Chauncy Riddle, is the ability to ask and give meaningful answers to these questions at any juncture. The challenge of the advisor to the adult student is to provide those experiences which will help the learner become intellectually acute in asking and answering effectively these questions in the following broad areas of learning:

1. Philosophy and religion direct attention of the student to an understanding of himself and the meaning of life. This area is labeled *Man and the Meaning of Life.*

2. The social sciences and history are directed to a better understanding of the behavior of man and of groups of men and their development and cultures through the ages. This area is called *Man and Society*.

3. The humanities and arts encourage appreciation of the great literary and artistic works of man. This area is referred to as *Man and Beauty*.

4. The natural and physical sciences are organized to bring about an awareness of the scientific works of man and his natural environment. *Man and the Universe* is the heading given this fourth and last area.

The *modus operandi* is to provide time for the normal working adult to prepare for and engage in a three-week in-residence seminar for each study area. An effort is made in all four areas to integrate the knowledge gained and apply that knowledge to the problems and issues of our times. The student completes each study area successfully before moving into other areas of the program.

One last area of study consists of exercises in which the student cuts across all areas of learning in in-depth preparation of a topic or problem in a field of his interest. We call this the closure experience. The preparation of the closure project plus attendance at a special summer seminar of two weeks calls upon understanding of the concepts learned in the four areas. An intensive assessment of the learning experiences through examinations, interviews, and personal observations of the student concludes the experience.

The degree is based on the assumption that the learner brings to the program minimal and normal abilities which are then worked with and developed on a no-fail basis. The rate of learning will be variable. The degree of increase in challenge and difficulty will be in accordance with the student's interest, his background and circumstances, and the time available to him. This, then, is the content of the degree in brief. A look at a few basic assumptions and procedures which characterize the degree might shed a little more light on what the degree purports to do.

One important basic principle is to treat the adult as an individual human being and tailor the program in terms of his needs.

The educational experience and the materials provided for the student will be first-class intellectually and will be based on sound teaching practices employing cassette tapes, special assignments, and personal interviews. In the end, the student's advisor will know the student much better than is possible for a teacher to know his students in a regular campus class.

The degree is not vocationally oriented, nor is it structured in terms of the usual college course examinations and letter grades nor with respect to the place and time stipulations of the usual college class schedule. The student is given descriptive grades which are subjective as most grades are, but a distinct effort is made to make measurement of progress both continuous and cumulative. This descriptive grade is based on personal observations of the student, written examinations, and exercises, with a definite assessment of the real consequence of the student's efforts weighted in terms of the central learnings he has acquired and used. The standards are those of a liberal education at the baccalaureate level.

The examination is thought of as an aid to teaching rather than the end itself. The larger end is the desire and the ability of the learner to continue exploration and learning all the days of his life. The goal is more than the recited answer.

Credit is awarded but not in terms ŏf the usual credit hours. Residence is required but not in terms of traditional semesters.

The competencies required for the various areas are set by the professors in terms of basic thread-learning concepts under this plan. The learning experiences already acquired by the adult are equated with the expected competencies. It can be seen that the professors give to the degree whatever character or virtue it may possess. The enlistment of a dedicated, qualified, top staff and a supportive, understanding administration are essential if the innovative and open-ended educational aspects of the degree are to succeed.

Brigham Young University hopes to do as well as, or even improve upon, what its sister institutions have done. When most of the graduates of a similar degree at the University of Oklahoma pass the graduate record examination with scores as high as or higher than the regular college students in the four-year curriculum, it is, at least, not a discouraging sign.

Nor should one assume the program produces a watered-down degree, irrelevant to needs. When the military sends officers to Oklahoma in large numbers and also makes it convenient for them to experience this attempt to educate the whole man, we know it must have value suited to the needs of the military.

This terse statement about the Bachelor of Independent Studies degree probably poses more questions than it answers. For example, the total admissions procedure is not described nor are the examinations, the nature of the assignments, the advising, and the grading explained. This much should be said about testing. The SCAT test and the general examinations portion of the CLEP testing program are administered as a part of the assessment program. We decided that the general part of the CLEP would be especially helpful for adults, since much of their knowledge has been gained on their own, outside the formal classroom. At any rate, the approach used in this liberal studies baccalaureate degree program is a challenge for the test experts to experiment with every reliable testing device to discover what the adult has learned through his life experiences and then to equate this learning with the goals and requirements of the new degree.

Interesting reactions have come from our 30 or more faculty engaged in preparing content and procedure of the Bachelor of Independent Study degree. After hours of committee discussion, most of them see how they might reform and improve the regular curriculum of Brigham Young University. They would like to be given time to engage in the readings and seminars of this new degree.

The prospect of being associated with students who may have learned much that is sound and which they, the professors, did not teach them is somewhat of a switch. The prospect of a professor teaching and learning while he teaches adults may be innovative. This one thing seems clear. All concerned with launching the new degree are continuing learners as well as professors. Indeed, the faculty is pushed into the process of revising and improving the outlines even while the Bachelor of Independent Study program is being announced. It is an exciting continuing educational project. It appears true, as Thurman White of Oklahoma has said, that "The liberal studies degree is for students who love to learn, taught by teachers who love to learn."

J. William Streidl

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". . . we recognize that there is a growing interest within business and industry to look at 'knowledge workers' as an investment in human capital."

"Our approach to using CLEP is straightforward . . . we really don't care how people have learned what they need to know in order to do an effective job, as long as they have in fact learned."

Business and Credit by Examination

INVESTMENT IN HUMAN CAPITAL

J. William Streidl

I was asked to present a business "frame of reference" during my discussion of credit by examination in the business world. To discuss businesses as a group would present "frames of reference." Therefore, I will tell you a little bit about my one organization so you can relate to a single frame of reference and, at the same time, perhaps come to understand why I feel as I do about the points I will be making.

Packaging Corporation of America operates approximately 60 plants and mills on a national basis, producing and marketing a wide variety of pulp, paper, paperboard, corrugated containers, folding cartons, molded products, and plastic packaging supplies. Local operations range in size from 25 to approximately 1800 employees. Because most locations tend to be medium-sized, we have found it necessary and helpful to use a wide variety of education, training, and development opportunities. We are a wholly owned subsidiary of Tenneco, Inc. of Houston, Texas, and most of my activities and remarks will relate to approximately 2200 of our 10,000 employees who are our salaried "knowledge workers," educated employees.

Within this frame of reference, then, I will comment on the following major points:

1. The current and future opportunities for continued education for the typical employee in our company

2. The importance of liaison between the academic community and business and industry

3. Apparent trends in internal and external (i.e., outside the company) education and training and development programs

4. Employment trends for college-trained people

5. Use of CLEP within our company

I believe I can most effectively begin by quoting from Peter Drucker, a well-known professor, author, and management consultant who is widely read in the business community, and whose thoughts have had substantial impact on business concepts and operating philosophies (see Exhibit I).

"The Age of Discontinuity" as identified by Professor Drucker has caused business and industry to take a new look at education and its results in a very broad sense. Unquestionably the "knowledge explosion" is a major discontinuity. However, we have traditionally looked to the academic community to supply us with effective knowledge workers. We must utilize knowledge workers to stay in business. This is true because the knowledge explosion has created a greater need for knowledge workers, regardless of the relative sophistication of the business or industry concerned (see Exhibit II). As Professor Drucker suggests, we have seen a tremendous expansion in the need for employee education, training, and development on almost a logarithmic basis. However, during my business career, I have seen the emphasis shift from fewer training programs, in the Pavlovian sense, to satisfaction of knowledge needs via "concept-based programs." This shift to concept-based programs means that we expect knowledge workers to learn many of the things on their own that we traditionally expected them to acquire through formal education.

This shift in emphasis has, I believe, resulted in the following trends at Packaging Corporation:

1. *A greater willingness to experiment with a variety of sources to achieve learning objectives, both internal and external.* Last year, for example, we had about an equal number of managers enrolled in both internal and external programs. In numbers, this was about one-third of our managerial work force.

2. *A greater recognition that some of our past internal efforts have not effectively satisfied our needs.* This is particularly true

for learning needs which are concept-based. We know that there are some real advantages to using outside education sources to improve staffing, to create a more effective use of dollars, to decrease company insularity through outside resources, and to bring about a greater professionalism within the company. More simply stated, the trend indicates that we are more likely to look at professional educators to satisfy our needs than we have in the past, but we may not necessarily agree to their traditional approach to teaching when we engage them.

3. *A greater tendency to look at second careers, either through constantly relearning a job or actual job change (see Exhibit III).* PDO to us means *personal development objectives.* Exhibit III illustrates the occurrence of a development gap between an individual and his job when PDO are not pursued. We recognize that people must acquire new bodies of knowledge just to stay abreast of the times and their jobs. Moreover, since change is the name of the game in business, most of our managers with potential must continually gain new knowledge. For example, we hired a young man out of the industrial supervision curriculum at Purdue in 1965. Since that time, he has served as a Production Supervisor and Industrial Engineer, and a Field Sales Representative. Each of these activities involves additional learning input, both formal and informal.

I have personally seen the need to learn continually. I am now on my sixth position with my company since completing military service and my master's work. I shifted my initial emphasis from learning about human relations in terms of the original Mayo and Rothelsburger studies to business skills, then collective bargaining, and now finally to the behavioral sciences in general.

4. *The recognition that a specific level of formal education or grade record does not necessarily guarantee success.* There are more and more indications that those things we traditionally looked upon as success predictors just are not valid. Education is no longer seen as the best criterion for selecting an effective manager or worker. Neither is experience through occupation enough of an indicator that a man will perform well if promoted to or hired for a managerial or more responsible position. But education, together with experience, has proven to be a successful

influence in creating effective knowledge workers and company managers.*

At Packaging Corporation, we encourage employees to participate in educational programs, as I have already stated. Recently we ran a study to determine the effect of education on our employees. Two significant items correlated with the educational level of individuals. The first indicated that highly educated employees tended to state their performance goals more clearly; the second, that more highly educated employees perceive themselves as having significant influence over the establishment of personal development goals.

5. *The entire process of college recruiting, which has caused us to take a new look at the person with two years or less of college experience.* The two-year man, for a host of reasons, will probably to be an effective employee and a better student. He may likely want to pursue his degree work later through actually enrolling in college classes or by building credits through the CLEP program.

There is a brochure entitled "The Campus and the Corporation" which I believe explains the need for liaison between the business and the academic community. I doubt if we could even question the need for establishing liaisons between the two (see Exhibit IV). Because we want to punch holes in the "diploma curtain," as identified by Professor Drucker, we might find value in spending a few minutes discussing some of our disenchantment with the typical college recruit. Our major problems can be related directly to the following three statements:

1. We do not always understand him.

2. He doesn't always understand us.

3. We sometimes feel that he is getting a jaundiced view of the business world.

These statements concern us even more as we look at high turnover and salaries inconsistent with the actual return we received for the period after such a recruit is first hired (see Exhibit V).

*J. Sterling Livingston, "Myth of the Well-Educated Manager," *Harvard Business Review* 49 (January-February 1971): 79.

These concerns have resulted in the nagging feeling that there must be a better way if we are serious about equal opportunity and truly wish to provide continued opportunities for personal challenge and growth to employees who have not been able "to punch their way through the diploma curtain."

Even as we express our concerns about college recruiting problems we recognize that there is a growing interest within business and industry to look at knowledge workers as an investment in human capital. Rensis Likert in his book, *The Human Organization,* made many of us in business think about the way in which we evaluate our human assets, one of the few assets, by the way, which can appreciate rather than depreciate over a period of time. We know that we must maintain our investment in human capital and we will use a combination of internal and external education, training, and development opportunities and programs to maintain that investment. However, one key point should be made. That is, we really don't care how people have learned what they need to know in order to do an effective job, as long as they have in fact learned.

One of our traditional approaches to maintaining our investment is to enroll employees in such diverse institutions as Rutgers, Northwestern, University of Colorado, Macon Junior College, Elmhurst Junior College, Fairleigh Dickinson, Roosevelt University, Chicago City College, and Loyola. Under the tuition reimbursement program, the cost of their education is completely paid by Packaging Corporation.

As you can well imagine, the range of courses related to such enrollments are even more diverse than the institutions where the students are enrolled. Again we feel the tuition reimbursement approach is a legitimate and realistic one, and we welcome an opportunity to assist our employees as long as they have an ultimate objective for learning.

Our outside training has typically involved major universities such as the University of Michigan, University of Wisconsin, Northwestern, and Harvard.

Typical courses at these institutions include rational problem solving and decision-making, management of managers, leadership methods, sales situation management, managing management time,

financial accounting for the nonfinancial executive, process control instrumentation, and interviewing skills.

While the above list is not all inclusive, it does mention quite a range of disciplines: accounting, engineering, organization, culture and environment, mathematics, psychology, operations research, sociology, and statistics. Where we cannot satisfy our needs internally and externally, we used a combination of these approaches. For example, we recently had over 200 managers complete a programmed text on the essentials of accounting, giving them the equivalent of one year of basic accounting. They then came to our corporate headquarters at Evanston, where they received two days of formal seminar from a Northwestern University business school professor. Phase II of this program will involve their returning to us with their new knowledge base to learn more about our own accounting and control activities as taught by our corporate accountants from our control staff.

This, of course, leads to the role of the College Level Examination Program in Packaging Corporation of America (see Exhibit VI). Our approach to utilizing CLEP is straightforward. While our uses to date have been few in actual number, this may still serve as an indication of our basic premise. We don't care how a person has learned as long as he has in fact learned. CLEP, therefore, to us appears as a valid program for the following reasons:

1. At a time when companies and businesses are faced with an increased need for effective knowledge workers, CLEP provides one method of defining these people for selection.

2. Conversely, CLEP also provides the workers with a tool for measuring their knowledge; the results may then be used as leverage in moving within the professional as well as academic communities.

3. The present employee is rightfully concerned with relevance. He should not be required to lock-step his way through courses about which he already has a knowledge base. CLEP lends an alternative to the employee who may have gathered knowledge, either purposely or incidentally, through his life experiences, by allowing him to by-pass unnecessary time in the classroom. The test score is the proof of his knowledge, the application of this proof may then be used by a person in a way meaningful and relevant to him.

I must digress briefly before making my final point. Professor Frederick Herzberg, Chairman of the Department of Psychology at Case Western Reserve University, has made a substantial impact on business thinking. In his Motivation Hygiene Theory, he states that "Opportunities for recognition and personal growth are key motivators for workers in an affluent society." The opportunity for continued education appears to be a "satisfier" from a motivational standpoint. Regardless of some of my needles at the academic community, I do have great faith in the ability of education to make ours a more productive and useful society.

A few years ago, Mr. Servan-Schrieber, the French author, made a tremendous impact in France with his book, *The American Challenge*. One of his conclusion swas that our U.S. economy has been extremely successful because of its strong emphasis on continued education and development in the broad sense of the word.

4. Programs like CLEP can have a significant effect on satisfying individual needs for personal growth and ultimately can have related effects on corporate success. CLEP can stimulate self-development on the part of many employees who have not had the opportunities that some have had to complete undergraduate or advanced degree work. Such stimulation through legitimate recognition of external knowledge is a commendable weapon to tear down the diploma curtain in the Age of Aquarius.

EXHIBIT I

"But the most important of the changes is the last one. Knowledge, during the last few decades, has become the central capital, the cost center, and the crucial resource of the economy. This changes labor forces and work, teaching and learning, and the meaning of knowledge and its politics. But it also raises the problem of the responsibilities of the new men of power, the men of knowledge."*

*Peter F. Drucker, *The Age of Discontinuity—Guidelines to our Changing Society*, Harper and Row, 1968.

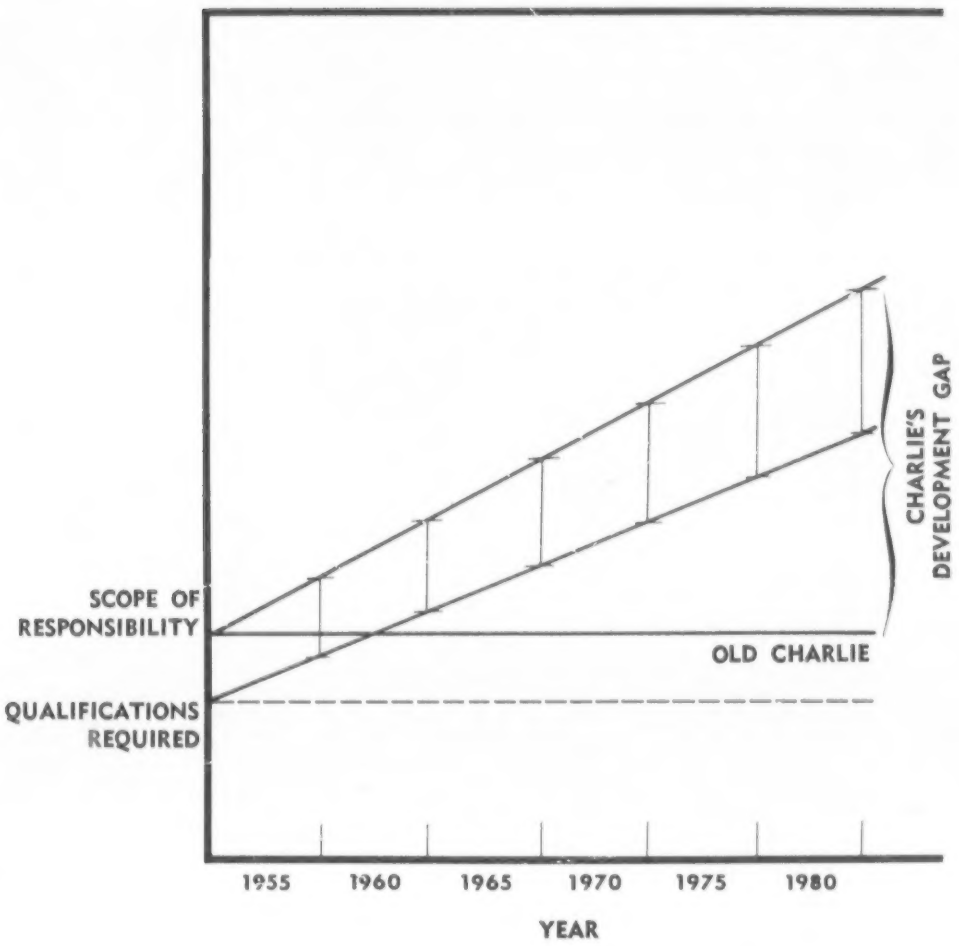
EXHIBIT II

"From now on, we can expect increasing emphasis on work based on knowledge, and especially on skills based on knowledge. The new jobs that open up in the economy will start out with theoretical and conceptual knowledge acquired systematically and in a 'course.' Old jobs will either be changed to knowledge jobs or will be replaced by knowledge jobs. We can expect, in other words, that we will develop a true knowledge work force. A good deal of this knowledge work, like computer programming, will be semiskilled rather than highly skilled but even then it will require a knowledge foundation acquired in school."*

*Drucker, *Age of Discontinuity*, pp. 332-333.

EXHIBIT III

WHY PDO?



1. Every job can be improved.

2. We must get over the idea that, once qualified, a manager is always qualified.

3. Managers must be expected to requalify each year.

4. We must provide the opportunities for them to do so.

EXHIBIT IV

"We need to punch big holes in the diploma curtain through which the able and ambitious can move even though they have not sat long enough on school benches to satisfy the schoolmasters' requirements. Employers, and especially large companies, need to look in their work force for the people of proven performance and willingness to achieve, though they lack the formal requirements. Indeed, to spend on this part of the money now spent on college recruitment would be highly profitable. With everyone trying to get the same college graduates, no one can hope to get anyone particularly outstanding, or indeed anything but mediocrity. All one can do is bid up the entrance salary. Perhaps there are fewer big fish in the pond of those who have not gone to college. But the individual employer's chance of landing one of these big fish is infinitely greater in the pond where nobody else fishes than it is among college graduates where he competes even for the minnows with every other employer in the land."*

*Drucker, Age of Discontinuity, pp. 332-333.

EXHIBIT V

RECESSION HITS THE CAMPUS: FEWER JOBS FOR GRADUATES[1]

Another victim of the business slowdown: college class of '71, with its dreams of high paid careers. Cold fact is good jobs are hard to find.

BEGINNING SALARIES—A DIFFERENT STORY[2]

Degree	*1971 Average Monthly Salary Offer*
Nontechnical with M.B.A.	$1,018
Eng. and Tech. with M.B.A.	1,075
B.B.A.—Sales and Marketing	676
B.S.—Chemistry, Math, Physics	744
B.S.—Chemical Engineering	928
B.S.—Metallurgical Engineering	890
B.S.—Mechanical Engineering	886

[1]*U.S. News and World Report*, March 15, 1971.
[2]March 8, 1971, College Placement Council.

EXHIBIT VI

Packaging CORPORATION OF AMERICA | Form 11-0001-1

INTER OFFICE MEMORANDUM

FROM : J. W. Streidl AT: Evanston DATE: 0072

SUBJECT : CLEP ENROLLMENT - COMPANY PARTICIPATION EXHIBIT VI

TO : AT:

cc: Plant or Location Manager
Department Manager

As you requested I have attached several brochures describing the "College Level Examination Program". Please review the "Bulletin of Information for Candidates" in detail since it should answer many of your questions about the CLEP approach.

Employee participation in the CLEP program is optional and at the discretion and interest of the employee. In addition, it is the employee's responsibility to register with the College Entrance Examination Board for tests and to handle all details related to taking the tests. Similarly, it would be necessary for the employee to contact the college or university of his choice to determine whether test results are acceptable for advance credit.

If the employee chooses to designate the company as one recipient of his personal test scores, (See Section 12 Score Report on CEEB Registration From) we will:

1. Make these scores a matter of corporate personnel records in recognition of the employee's level of "college equivalency" attainment.

2. Reimburse the employee (up to a maximum of $100) for the tests he takes. Receipt of employee test scores will serve as our notification and voucher for such reimbursement.)

Please contact me if you have other questions about CLEP.

Kenneth J. Dowling

is the Director of Education and Training, Personnel and Organization Staff Departments at Ford Motor Company, Dearborn, Michigan

"The real value of credit by examination is that it expedites the process of education. Of course, another value is the encouragement credit by examination provides to those who need a stimulus to continue their education."

Industry and Credit by Examination

CONTINUING EDUCATION AS A JOINT ENTERPRISE

Kenneth J. Dowling

The first rule in talking to groups is to make certain you know more than the audience does about the subject so you can at least share information with them. What I am hopeful of doing today is to relate what is going on in industry, how testing has a bearing on that, and finally to describe some of the kinds of activities that we are undertaking at the Ford Motor Company. I also hope to share with you some additional information on what other organizations are doing.

My remarks are based on two assumptions. The first is that there is a buyer's market today when the college graduate looks to industry for work. And the second is that competition between individuals for advancement in business and industry is increasing. The import of these assumptions will be more apparent a bit later.

We have moved in the direction of becoming a society in which an individual may be automatically disqualified if he lacks certain credentials. Dr. S. M. Miller of the Ford Foundation has described America as having become, in large part, a credential society—a guild system of diplomas, licenses, certificates, and the like. Others, such as James Conant, Ivar Berg, and John Gardner, to name a few, have come forward to take issue with policies and practices that tend to exclude people from positions and areas because they cannot provide evidence of academic accomplishment.

These and other critics suggest that too literal a dedication to this concept of the credential or to use of the credential really runs

the risk of cutting business and other institutions off from great resources of talent. They also suggest that we may be creating a social issue when, at some point, we will have a whole class of "dropouts" within organizations with little or no chance to build meaningful careers. At some point these people will not survive in our system.

Alvin Eurich, a member of the U.S. National Commission for UNESCO, has also expressed strong views on this subject. He suggests that there is an almost pathological overreliance on credentials and that corporate leadership could do a great deal to help solve the problem. Kingman Brewster, president of Yale University, has also attempted to pin some of the blame on business and its increasing demand for college-trained personnel.

It must, however, be recognized that those who are responsible for selecting people and those individuals charged with responsibility for seeking the best-qualified candidates with the highest potential for a work-force are faced with a quandary.

On the basis of logic alone, is it not reasonable to assume that successful completion of a course of study leading to a degree in a particular area implies possession of knowledge and skill as well as ambition, discipline, drive, and other positive characteristics much sought after in prospective employees? Is it not equally reasonable to assume that successful completion of a work and study program in a particular trade leading to a journeyman's designation infers similarly desirable characteristics? And, finally, is it not logical to require through performance and testing the demonstration of competency in a specific field as a prerequisite to licensing and employment?

The answers to these questions demonstrate a type of logic that is responsible for much that goes on in corporate recruiting practices. Essentially, we're talking about a screening device. When you combine that with a demand generated by individuals who perceive education and training as a necessary route to career selection and success, you bring into being a corresponding response by the educational community. The growth of financial support programs, such as the G.I. Bills, public and private scholarships, and the general affluence during the period since World War II, provide additional fuel. The result is an educational boom unparalleled in

the history of man and a very large supply of available candidates for the positions that we have in business.

Hence the quandary. On the one hand we have an increasing supply of good candidates coming from colleges and universities. On the other hand, we have a slower growth rate of opportunities in business in the areas in which these people are interested. Therefore, we have created a buyers' market in which industry becomes more selective in choosing employees. The figures,* sterile as they may be, indicate the magnitude of the boom by year-end, 1970. In the United States, 11.5 million persons 25 or over hold degrees of one kind or another. An additional 10.5 million Americans had completed one to three years of college. This adds up to 22 million Americans 25 or over with one or more years of college-level work. An additional fact worth noting is that degree holders alone are expected to increase to 18 million by 1980.

At this point, let me insert some information about the composition of the work force at Ford Motor Company. I don't suggest that we're unusual; a similar situation can be found at almost any other large organization like ours.

We have roughly 64,000 salaried employees in the United States. Two-thirds of that work force have some education beyond the high school level. In our salary grade range one to four, approximately one-half of the persons in that classification have one year or more of formal college education. In salary grades five to eight, which is the area I want to talk most about, 28 percent of the people have baccalaureate degrees or more, and 37 percent have some college experience. In effect, then, in these two salary ranges, 65 percent of our employees have one year or more of college. Above salary grade nine, 60 percent have at least a bachelor's degree and over 90 percent have attended college. I cite the figures to illustrate the upward progression of people in an organization as it relates to their level of formal education.

Let me add a few additional facts to underscore what is taking place. Lewis Mayhew of Stanford University recently completed a survey and estimates that by 1980 the country's educational institutions will produce 67,000 Ph.D.s and 360,000 master's degrees annually. By way of comparison, during 1968-69, the totals were 26,000 and 186,000.

*Published by the National Industrial Conference Board.

All of this adds up to real credential competition for available entry position in many organizations, as well as continuing strong competition among individuals already in organizations. Under these circumstances, there will be a temptation for business to use the acquired credential as an indicator of potential and ability and as a selection factor. There is no question that we are headed in that direction.

Given this trend, do we run the risk of cutting society in two by creating a "diploma curtain" as suggested by Peter Drucker in his excellent book, *The Age of Discontinuity?* Will a situation be created where organizations increasingly demand credentials to meet their perceived needs and thereby curtail access to opportunities for half the population—the ones who did not attend college?

This condition need not develop, and there is evidence that many areas of our society are beginning to face up to the problem. The most visible evidence is in the field of continuing education. This concept makes the school a continuing part of life and work.

Updated knowledge and career progress are becoming inseparable, and education is rapidly becoming a continuing process. For example, during 1970, 20,000 Ford employees registered in courses ranging over subjects including Ph.D.-level work; the primary motivation—enhancement of qualifications. Ninety percent of that course work was at the degree-granting level. Several other major companies are individually investing more than one million dollars each year in tuition assistance to aid employees in completing work toward degrees as well as special education in a wide variety of topics. This interest is based on sound business—that of investing with the expectation of a solid return. Investments of these kinds have real payoffs, all of which are not necessarily or appropriately measured in terms of direct dollar returns. They also improve the attractions of the company as a place to build a career, enhance the qualifications of the work-force, and strengthen an organization in the real area of competition—the quality and performance of its people.

I'd like to share our views on this movement toward continuing education. At Ford, we are most interested in working with colleges and universities. We do not wish to move outside the education system. Fortunately, due to the location of several of our major

components, it is possible for us to cooperate with existing institutions. Briefly, I will describe the kinds of activities that are taking place.

The point I'm trying to make is that there is little doubt that the tremendous outpouring of people from educational institutions is creating a buyer's market. This availability is being translated into a continued emphasis on the credential as a prerequisite for membership in the organization. In addition, we see an improving quality among credentialed candidates, and this will not only intensify the competition for those without a credential but also for those who have a credential which is not current.

Henry Ford II has stated that management must seek ways to insure that people of ability are not discriminated against just because they may lack a college degree and that individuals must be given opportunities to prove their abilities by doing. At Ford, management-level positions are open to anyone with proven ability. Many individuals without formal credentials occupy such positions and carry out heavy responsibilities successfully. But as I noted earlier, nearly 90 percent of the individuals in these positions have some college, and over 60 percent have at least a bachelor's degree. In fact, over the past few years, the number of degree holders in all functions has increased by 25 percent.

The employee that is of the most concern to us is typically 35 to 45 years old, has from 10 to 20 years with the company, consistently earns the highest performance rating from his supervisor, has a tremendous wealth of experience, and has accumulated a great deal of informal education and a variety of credits through a host of activities.

What is happening to this person? If he looks ahead, he sees that to move upward in the organization he will need some sort of an academic credential. If he looks behind him he sees the newer, younger, employees being brought into the company, many of them already in possession of a degree, and he's in a crunch position. What he's looking for—and we're talking about thousands of people now—is a means to move outward and upward. This group supplies most of the 20,000 employees enrolled in continuing education programs that I mentioned earlier. These are important people in important positions, and we had to find ways to aid and encourage them to continue their education.

Although there is emphasis on an individual's academic qualifications at Ford, there is also concern for providing paths by which any employee can qualify himself for greater responsibility. This overall concern has formed the basis for many programs currently at Ford that I would like now to share with you.

The Ford Motor Company has a U.S. workforce of approximately 240,000 hourly and salaried employees. In a community this size, personnel and organizational developmental activities are both substantial and complex. I would specifically like to share with you some examples of the types of activities in which testing, credit, and continuing education are significant considerations.

In describing the Ford Motor Company approach to education and training, I would ask that you accept the description and applications as being representative of the kinds of actions that many companies, large and small, are taking. While we believe, at Ford, that we are pioneering ideas in several areas, we find that other organizations are equally active, and there is an increasing spirit of cooperation growing among us with a free and open exchange of ideas. Other large organizations, such as IBM, AT&T, Boeing, General Dynamics, and others, each in its own way, are pursuing programs to deal with the problem.

Let me now describe briefly the overall philosophy of our company. With 240,00 employees widely dispersed in 127 different components—ranging from 25 people in a small field office to 8,000 in some of our plants—we do not find it desirable to maintain a highly centralized operation with respect to education and training activities. Ford does not have a large instructional staff—at the moment we have no more than six instructors—and we rely almost exclusively on the educational community to provide instructional services. We have some established policies for general direction and guidance, but essentially each unit has a great deal of latitude to do as it wishes.

We have also attempted to move the responsibility for making decisions down to the line supervisor. The primary responsibility for personnel development is placed on the individual employee. He has the right to go to his supervisor who has the authority to say, "yes" or "no." And that's all that is really required in our system. The individual need not work his way up the bureaucratic ladder to get an answer.

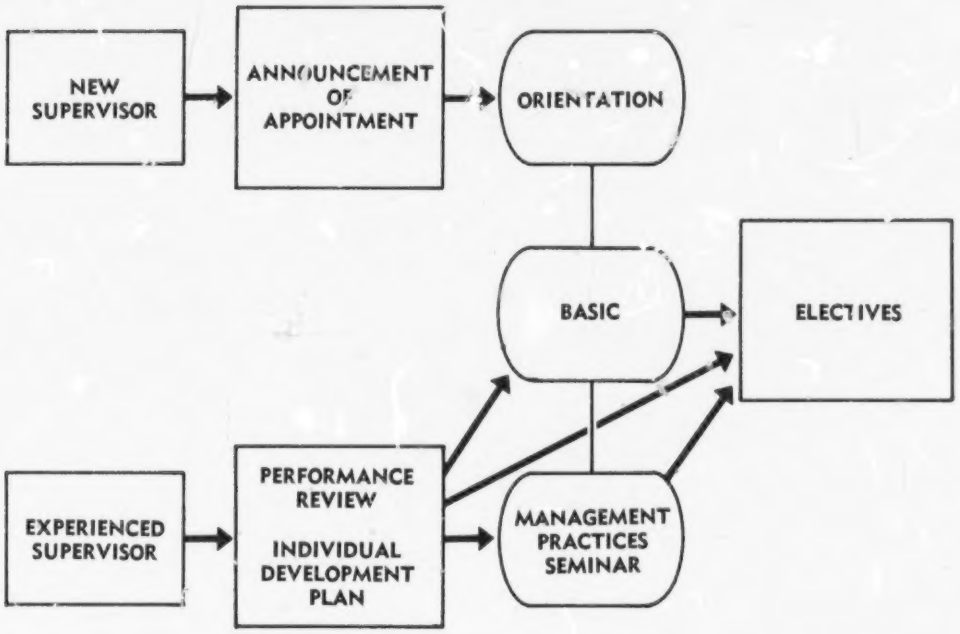
Each Ford division has the capability and organization to provide supplemental services to the line organization in setting up these kinds of educational activities. We've done a fair amount of experimental work in experiential learning. As a result, we rely less on the traditional classroom, less on the use of the traditional lecture. We also make much use of the self-pacing concept which allows each individual to move at his own rate of speed and not in a lock-step formation.

The two largest companywide continuing education programs presently in operation are the Ford Employees Continuing Education Plan (for salaried personnel) and the Hourly Tuition Refund Program (for hourly personnel). The FECEP began in 1952—not very long ago. The hourly program did not begin until 1964, and it is still a modest program, but the potential is there for any hourly employee. Supplementing these two programs, we have many, many activities that are directly tied to the colleges and universities, such as the Advanced Education Fellowship, the Ford Technical Education Award, and Ford Graduate Release Time, which are essentially master's degree level programs, principally in various engineering fields.

Again referring to the five to eight salary range that I mentioned earlier we have a large number of supervisory personnel clustered at the seven and eight level. For example, in most of our plant locations in smaller components, the typical supervisor of the salaried work force would be at a salary grade eight. Many of these people are ambitious, experienced, producing people, and we put together a program in 1969—or rather a system—which we called the Staff Supervisory Development System. It was about that time that credit by examination came to our attention. We have been able to use this program to some extent in connection with the SSDS, and we anticipate that we will get more mileage out of it as time goes on.

Actually this system is designed for new supervisors and is applied at the time they are appointed to the position. Provision is also made for the development of more experienced supervisors. The model indicates that we build a four-part module sequence, and it is not essential that all supervisors be exposed to every segment. The electives module is open-ended and individuals can draw upon many resources to meet their needs. This includes after-hours education, and it is in this area that CLEP can be used to good advantage.

Staff Supervisory Development System
Ford Motor Company



In 1968, College Level Examination Program (CLEP) put out a series of announcements, and we, like most other organizations, received these through the mail. We were intrigued on the basis of what we saw and how it fitted into a lot of ideas that we had. We invited Quentin Jones and the CLEP people to meet with us, and, over a period of about a year, we investigated the possibilities of bringing CLEP into our company. CLEP was not very well known at that time, and very few other companies were using it. We started initially with a pilot program and decided to use a foreman group to test the concepts and to see, in fact, if it would pay off.

Most foremen are high school graduates, not college graduates, although a few of them may have a little additional education at the college level. So, in testing the program itself, we pulled together approximately 30 foremen from the Dearborn Assembly Plant, and working with Wayne State University, a testing center, had them take the CLEP examination.

The net result of that activity was very interesting. Of the group that took it, 30 percent of them scored in the 25th percentile or better. The highest cumulative score attained was approximately 2700 on the General Examinations, and the individual ranges ran

from a low of 261 to a top score of 616 on natural sciences. With that information in hand, we visited a number of educational institutions in the area—colleges, junior colleges, and universities—to ascertain their interest in working with us. We then converted our experience into company policy, and under the framework of our FECEP established a policy where individuals could go ahead on a voluntary basis and take these tests. To the extent the universities would grant credit, our employees could then continue their formal education. Since that time, the fall of 1969, we have had approximately 60 to 70 people take advantage of this opportunity. We view the plan as still in a pilot phase at this time, but it is our best guess that, over a period of time, it will become an essential part of our continuing education program.

There are some very interesting case histories that have developed out of our limited experience to date. A foreman in our assembly plant who took the examinations as part of the pilot project came up with such high scores that with a little encouragement he went to Wayne State University, presented these scores, and obtained 44 credit hours. In a little over a year since then, he has accumulated enough credits to qualify for junior status at the end of the current quarter.

He is a remarkable guy. I talked to him before I came out here in order to get a little insight into his case. He is a man who is fairly typical of the kind of individual we are aiming at—that is, a man who has picked up an informal education and who has the potential of converting his perceptions and experience into a set of credentials which will allow him to progress in the organization. Without this opportunity, he would never have gone beyond the foreman's salary grade classification. I think he realizes his opportunities for continuing to build a career, and I think that kind of case is typical of what we would like to see happen.

We have had many other case histories. They are all from the same profile which I mentioned earlier. Another individual, age 40, had been unable to go on to college because of finances, military service, family—all the things that were mentioned yesterday. Nevertheless, he was able to reach a position of supervisor at salary grade nine in our organization because of his own ability and drive. This man might have been blocked at nine, but he's too good a man to be held back. However, the lack of credentials could stand in the way of moving ahead, and he knew that. Therefore, he took the

CLEP examinations and presented his credentials to the University of Detroit. They evaluated them, and the man came out with 24 credit hours. He also has accumulated an additional 18-20 hours during the past year, and, as a result, he is well on his way to a degree. My guess is that when he gets it, he will progress much further than he would have had he pursued a more traditional means of education and job seeking.

These are examples of the kinds of case histories we are finding in these programs. The real value of credit by examination is that it expedites the process. Of course, another value is the encouragement credit by examination provides to those who need a stimulus to continue their education. To conserve time, I shall not describe the arrangements we have been able to work out between the College Entrance Examination Board and the Educational Testing Service for handling the applications and the payment of fees for the CLEP exam. It is, however, simple and efficient from our point of view.

What are some of the other companies doing with CLEP? The common comment among them is that CLEP allows an individual to obtain advance credits with which to launch a program. We have also found that many individuals who take the examinations but fail to perform well enough to receive credit do, in fact, get themselves into a community college and enroll at the beginning level of a degree program. So the encouragement factor operates even without the awarding of credit.

Beyond that, companies use CLEP in different ways. The Port Authority in New York is using it as part of a man's personnel record and for promotional purposes—that is, the equivalent of formal training.

General Dynamics has an arrangement for what amounts to an external degree with Texas State Technical College, using CLEP as a base.

International Harvester Company is using CLEP in much the same way as we are at Ford, for upgrading and allowing employees to secure their credentials.

Lockheed is using it essentially for testing purposes and placing it on the record.

Packaging Corporation of America is using CLEP for promotion purposes and for educational records equivalency.

I'm not sure how rapidly nor how widespread industry's use of the testing procedure will be. But I do know that there is a great interest in it, and our experience at Ford with CLEP has been a most satisfactory one. We view the past three years as a learning experience, and we think that perhaps it will develop slowly but over time will become an integral part of the process by which people can upgrade themselves in our system.

In doing a little work in this area, I discovered some interesting facts about testing. For example, at Wayne State University, I found they have developed a series of examinations called the Tradesman Competency Testing Program. In many ways it is complementary to CLEP. Using this program, Wayne State can take a skilled tradesman—let's say a tool and die maker—and run him through both a performance test and a paper and pencil test. If successful, that person can receive as much as 45 hours credit toward a degree.

I asked the obvious question, "Can an individual earn 45 hours of credit through the Tradesman Competency Program and earn 45 hours of liberal arts credit via CLEP?" The answer was affirmative. Thus, a person could be awarded as many as 90 hours of credit by examination at Wayne State University.

In my opinion, we at Ford will use CLEP in the following ways in the years ahead. First, we expect to include the hourly workers in the program during the course of the next three years. Second, we are toying with the idea of permitting individuals with no college experience to petition their supervisor to enroll in the program to take CLEP both to determine their ability to do college-level work and to gain advanced credit when they begin their education at a college or university. Finally, we will continue, of course, to use it in connection with continuing education programs and will supply the financial support required for any employee who wishes to avail himself of that opportunity.

James J. Smith, Jr.

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"I can see a direct correlation between testing, credit by examination, acceptability to college, and, as a result, an increase in the options that are available to a military man."

"We're talking about giving supportive services and appropriate alternatives to education through credit by examination to men who one day will return to us interest on our investment. . . ."

The Military and Credit by Examination

NEW REALITIES FOR RETURNING VETERANS

James J. Smith, Jr.

All of us had the privilege of hearing an address by Dr. George Hanford, President of the College Entrance Examination Board, refer to credit by examination as an "opportunity for lasting change." In that address in Salt Lake City, he spoke of returning to Salt Lake after an absence of approximately 20 years and quoted a relevant phrase from Thomas Wolfe, "You can't go home again!"

For 975,000 servicemen who were separated by the military from active duty and have since returned to the economy, this quote has a somewhat more insidious meaning. I ask you, where can they go?

Few of these men care to return to the cycle of poverty and the unemployment and underemployment from which they came and which is merely punctuated by a two-, three-, or four-year enlistment period in military service.

All of us here are sophisticated enough to grasp the full meaning of the recently released report of the blue-ribbon White House Committee on the Vietnam Veteran which concluded that our military draws a large portion of its manpower from the ranks of society that are most disadvantaged. Perhaps you are also familiar with the fact that the Veterans' Administration's recent report concluded that a small percentage of black, brown, yellow, and poor white veterans were utilizing the education assistance that is available under the law. They are the sons and daughters of the men who are

the "mainstay of America." The poor white, black, brown, chicano, and oriental Americans who occupy the front lines in Vietnam, to keep the world "safe for democracy," are the men who could not receive military deferments for the undergraduate, graduate, and professional school careers as I, and many of you, undoubtedly did.

According to the statistics quoted yesterday by Dr. Alice Thurston of the Metropolitan Junior College District, there are now approximately two and one-half million students in our community colleges, pursuing courses of study in vocational, technical, and academic transfer programs. Is not the 'bulging admission rate," of which Dr. Gainsley of the University of California spoke, a mitigating force against the absorption of these returning servicemen into our vocational, technical, two- and four-year institutions?

For a moment let us put this information in the context of a not yet released report by the Office of the Secretary of Defense that anticipates separation of 1.3 million men from the military to return to our economy. This is approximately 70 percent of the entire student population on college campuses according to the data supplied by Dr. Thurston. How appropriate, then, the quote, "You can't go home again!" "You can't go home again" engenders awesome anxiety in our returning G.I.s. No, it does not appear that we, the college community, have now any place available for them to go.

In 1969, Dr. Robert Altman, Director, Special Higher Education Programs with WICHE, was in the Office of the Dean of Community College Affairs in City University of New York. He assisted in designing and bringing to fruition a program which began to speak to the needs of the often praised, much decorated, sometimes criticized, but all too often forgotten Vietnam veteran. The program came to be known as Identity '69—College Discovery of Staten Island Community College in New York. Identity '69 included many students who never would have thought of going to college after the army. For them, the project was invaluable; for many it was literally a turning point in life.

The determined comment, "No, I don't want to be a private all my life—not in civilian life, too," seems to be a mandate for credit by examination to assist in bringing about new ways for people to succeed. "No matter what you rap or say, I'm not in school to be a

bum." The words are Harvey Nobles', one veteran who became involved in Identity '69. This statement speaks to me of the serious commitment these men have made to their college careers. For many of these men, Dr. Thurston's comment yesterday, "Time is a problem for the student trying to complete an Associate of Arts Degree," can only be reinforced by one additional point. "Space" for these men in our vocational, technical, two- and four-year institutions is also a problem.

Open admissions brought to New York City University 35,000 freshmen students in the fall of 1970. This is 13,000 more than the 22,000 who were admitted in the fall of 1969. The fact that Staten Island Community College presently enrolls 6400 students in a plant designed for 2600, which was to be fully occupied in 1975, speaks to the problem for which we have a possible solution—credit by examination and experimentation with the External Degree Program.

The reality of college and college graduation for the 375 men who graduated from the Identity '69—College Discovery program into 48 different vocational, technical, and transfer programs in City University could only have been made possible by policy changes. Similar policy changes in the future by many of you sitting here today could possibly bring a solution.

I agree with Dr. Harold Clark, Dean of the Division of Continuing Education at Brigham Young University, who said in his description of the External Degree Program in a speech yesterday on credit by examination, "Assist the student in assessing his disability, then provide him with able (and I add *committed*) advisors, and the anxious learner will draw on all available resources to succeed for himself." We have 375 cases to validate Dr. Clark's hypothesis.

It's not strange at all for me to hear and believe in and be deeply moved by Dr. George Dillavou as I listened to him describe one of his student's journey of four years from car upholsterer to faculty member at Roosevelt University. Credit by examination in no small way played a significant role in that journey. You and I here today can bring that possibility to reality for countless others.

I have committed myself to reading the *Sleep Walkers,* because I take exception to Dr. Lyle Gainsley's reference to the acceptance of credit by examination when he likened it to "moving a cemetery."

I don't believe that college administrators represent dead, inert, decomposed entities. Difficult, perhaps, but not deadly impossible.

I'd like to tell you a story I love to tell. Just recently we read that Alan Shepherd stepped from the landing vehicle onto the surface of the moon. I remember the first time that occurred. Neil Armstrong did it, and shortly afterward I had the privilege of listening to Dr. Von Braun, who then was head of NASA. Someone asked, "Dr. Von Braun, to what do you owe your great success? Advanced technology, superbly trained, bright young men, financial resources available—tell us, what put us on the moon before the Russians?" "Gentlemen," he said, "all you have to be willing to do is make five $6,000,000 mistakes in front of 400,000,000 people." He was referring to the Vanguard Rocket, which he designed and blew up on the launching pad. He was committed to putting a man on the moon. I think that I have felt a similar commitment to credit by examination for the military and servicemen, but thankfully not as expensive.

There is an old adage, "Necessity is the mother of invention." Let me tell you of one veteran who believed this and created an indelible mark on our society. The profile: veteran of World War II, separated from military, officer in the Navy, distinguished himself in the Pacific, age 25, a desire to go to college, little money, two babies, and a pregnant wife. The man couldn't afford four years in college on a college campus. Situation bleak, necessity for innovation. This is the same situation that today is a reality for our returning veterans. The individual we are discussing enrolled in college. After a year or so, he felt he could challenge the sophomore and junior year by examination. Necessity pushed him on, and he soon completed his senior year in college. He decided he wanted to go to law school. He enrolled. After 19 months, he felt it was possible to complete his second and third year of law school without attending classes, and he challenged the law boards. He passed and was awarded a Doctor of Jurisprudence degree.

We are talking about credit by examination. The man—Dr. William Bierenbaum, President of Staten Island Community College. The school—The University of Chicago under Dr. Hutchins.

In our program, basically we take men coming from military services with long experience in testing. Most of them, 49 percent, without high school diplomas, test out on the GED in numbers

approaching approximately 100,000. We send them through a 12-week program to motivate them and to "turn them on" to the educational process. To no one's surprise but theirs, 39 percent of them have passed the College Level Examinations, receiving between 20 and 38 credits at the time of admission to college.

What about testing in the military? The U.S. Air Force has over 500 tests presently developed under policy guidelines set down by Personnel Standards Division, Director of Personnel Planning, Chief of Staff, U.S.A.R. These are administered each year, free of charge, to military personnel by the test control officers at Air Force installations throughout the world. The U.S. Army evaluation system provides the basis for all personnel and management decisions involving the military enlisted men.

What about the Navy? The Navy employs many individual tests which we could possibly use. I see a direct correlation between testing, credit by examination, acceptability to college, and, as a result, an increase in the options that are available to a returning military man.

I'd like to recommend that you obtain a copy of *Equivalency and Proficiency Testing* from the U.S. Department of Health, Education, and Welfare and also secure from the American Council on Education a copy of *A Guide to the Evaluation of Educational Experiences in the Armed Services*, edited by Neil Turner, 1968. It lists over 1000 military occupational specialties. In looking through these volumes, you will quickly note that the military has very clearly classified educational programs and has suggested the amount of credit to recommend to colleges and universities.

For a moment, let me talk briefly about what could happen as a result of your deeper involvement in credit by examination programs at your various institutions. I can best explain by telling you about such at program at my own.

A year and a half ago we designed project MEMO to send admissions officers and registrars, 30 of them, to Vietnam, to acquaint them with the reality that the serviceman not only wants to go to college, but will attend if avenues are open to him and if he can perceive a need for doing so in terms of his own life. Given the data released by the Department of Defense, it is inconceivable that

we can expect to absorb a realistic proportion of the number to be separated, except through credit by examination and advanced placement with a capital "A.P."

Project MEMO was no small task, and it attests to the commitment of the team we took to Vietnam. We recruited 50,000 G.I.s in 18 days. Of this group 11 percent were awarded college credit by examination prior to admission. That is an indication that the "cemetery can be moved."

What has since happened to these men? Let me give three examples. Dean Peterson, a white kid from Iowa, had a transcript so unbelievably poor that I wouldn't send it to our registrar. He had nine passing marks. After four years in high school, he had accumulated only 11 credits. We first put Dean through a series of psychological tests and uncovered what we deduced were mental blocks to his learning process. We discovered that he was one of 11 children from a family in desperate financial and emotional straits. The possibility of this boy being admitted into any college was almost nil. We took him!

In his first semester at Staten Island Community College, Dean earned a 3.8 GPA. How is that possible? A great program at Staten Island? I wish it were true! The reason is credit by examination, together with the fact that when he began the program he was told that it was impossible to fail—that no one can be "turned out" of the program. This boy came to realize that a Ph.D. in failure could be replaced by an Associate Arts Degree in psychology. This summer Dean will graduate and go to Princeton to major in clinical psychology.

Let's talk about Manny. Manny was a kid of Spanish background, who went into the military to learn English. Of course, his educational transcripts reflected the fact that he couldn't understand what his teachers were saying. We provided two Spanish-speaking teachers. Brilliant??? Suddenly, Manny realized that he wasn't stupid or retarded. When he completes his work at Staten Island Community College this spring, he's going on to City University to major in Spanish and teach in an English-as-a-second-language program in the Spanish ghettos of East Harlem.

Harvey Nobles, whom I spoke of earlier, said to me when he came to college, "Jim, I don't know how long I'll be here. The only reason

I've come into the program is because I want to go to college. If you can show me that you can change my life, I may stay. That's all I'll commit myself to." In group dynamics sessions in our counseling program, we began to uncover why Harvey felt as he did. He was a child born to a mother who really wanted him to succeed, beginning in the elementary school. Push she did!

Today, Harvey heads up our Outreach Centers, which have brought to date 290 veterans to City University. They have been recruited out of the streets into our centers and channeled through our preparatory program to ready them for receiving credit by examination and ultimately be moved into vocational, technical, and transfer programs. Harvey was offered a job by IBM as a systems analyst at $8,300 per year with an Associate Arts Degree in Computer Science.

We're talking about giving supportive services and appropriate alternatives to education through credit by examination to men who one day will return interest on our investment, not to mention the benefit of their productive lives for our society and a possible reduction of welfare rolls.

What I just spoke of is entirely within the realm of reality. It will happen when you and I here are committed to making it happen.

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ATTENTION: Three of the publications listed on the inside back cover of this text are available from the College Entrance Examination Board at cost. These publications, together with prices, are listed as follows:

Credit by Examination for College-Level Studies: An Annotated Bibliography, $3.00.

Free-Access Higher Education, Warren W. Willingham, $6.50.

Patterns of Admission for Transfer Students, Warren W. Willingham, $1.00.

COLLEGE ENTRANCE EXAMINATION BOARD PUBLICATIONS

The following are available free from Publications Order Office, College Entrance Examination Board, Box 592, Princeton, New Jersey 08540.

College Credit by Examination through the College-Level Examination Program. A general guide outlining the program.

College-Level Examination Program: A Description of the General Examinations. A discussion of general examinations, interpretation of scores, preparation for taking the tests.

College-Level Examination Program: A Description of the Subject *Examinations.* A discussion of the subject examinations, interpretation of scores, preparation for taking the tests.

Bulletin of Information for Candidates: College-Level Examination Program. Including information about how, when, and where to take tests, costs, and time required.

Tests and Services: College-Level Examination Program. A booklet informing faculty and administrators about the CLEP program.

Credit by Examination for College-Level Studies: An annotated Bibliography. Listing more than 300 recent articles on the subject of credit by examination.

Free-Access Higher Education, Warren W. Willingham, 1970, a book discussing accessibility of higher education on a nationwide basis.

Patterns of Admission for Transfer Students, Warren W. Willingham, and Nurhan Findikyan, 1969, presenting data on the national flow of transfer students.